

REMARKS

In accordance with the foregoing, claims 1, 7 and 16 have been amended merely to overcome the non-prior art rejection, without affecting issues of scope. Claims 1, 3-7 and 16 are pending and under consideration. No new matter has been added.

ENTRY OF RESPONSE UNDER 37 C.F.R. §1.116

Applicants request entry of this Rule 116 Response and Request for Reconsideration because the amendments of claims 1, 7 and 16 should not entail any further search by the Examiner since no new features are being added or no new issues are being raised; and the amendments do not significantly alter the scope of the claims and place the application at least into a better form for appeal. No new features or new issues are being raised.

The Manual of Patent Examining Procedures sets forth in §714.12 that "[a]ny amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, §714.13 sets forth that "[t]he Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

REJECTION UNDER 35 USC §112, SECOND PARAGRAPH

Claims 1, 7 and 16 stand rejected under 35 U.S.C. § 112, second paragraph. This rejection is respectfully traversed.

Regarding item 3(a) of the Office Action, Applicants have amended claims 1, 7 and 16 to clarify the claimed features in view of the Office Action's remarks. Further, Applicants respectfully address the Office Action's remarks regarding such a clarification.

Specifically, the Office Action states "if the tilt angle is a calculated tilt angle, then amended lines 17 and 18 are claiming a feature which is already expressed in line 9." Applicants respectfully submit that lines 17 and 18 were intended to further clarify the claimed "storing" in that the storing is "for recording or reproducing sectors which require tilt correction" in view of the discussion at the Examiner's Interview conducted on March 19, 2008, wherein the Examiner's Summary indicates that such clarification is needed.

Applicants respectfully submit that since the Examiner apparently concludes that such clarification is unnecessary in order to overcome the rejection, in that such a feature is already

expressed in line 9, then the amendment submitted herein to claims 1, 7 and 16 to remove such redundant feature, should be entered.

Accordingly, Applicants submit that the rejection in item 3(b) of the Office Action is moot.

In view of the above remarks, Applicants thus respectfully submit that claims 1, 7 and 16 satisfy the requirements of 35 U.S.C. § 112, second paragraph.

Favorable reconsideration and a withdrawal of the rejection against claims 1, 7 and 16 are respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 3-6 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimada et al. (Shimada), U.S. Patent No. 5,898,654, in view of Erbert, U.S. Patent No. 4,727,533.

Shimada is directed towards overcoming the problem in optical disk drives of detecting tilt of an optical disk using a tilt sensor, the tilt sensor being typically arranged beside the optical head. See Shimada, col. 2, lines 49-52. In order to overcome this problem, Shimada describes an optical disk apparatus which reproduces a signal from a recording track in an optical disk. The optical disk apparatus of Shimada includes a first pattern generator means for generating a first pattern which causes the reproduced signal to jitter and a writing means for writing the first pattern to a first recording track of the optical disk. See Shimada, col. 2, line 66- col. 3, line 6.

To avoid using a special tilt sensor, Shimada instead describes that the tilt angle is determined from a special calibration data area formed in a lead-in area, or inner circumference area (3), of the optical disk. See Shimada, col. 6, lines 40-43. Special tracks, within the special calibration data area, are recorded with different pattern signals, and are prepared in advance on the optical disk. See Shimada, col. 7, lines 16-43. The tilt amount in Shimada is then measured from the jitter resulting from the calibration data track area. See Shimada, col. 8, lines 51-64; col. 9, lines 29-35.

Shimada further describes that additional calibration data recordings in an outer circumference area (4), may also be used, in which case, an arithmetical interpolating method may be used to determine tilt for areas of the disk in between the inner and outer circumference areas. See Shimada, col. 13, lines 34-49.

In contrast to Shimada, claim 1 at least recites "detecting a tilt of a disc loaded in the disc drive; searching a memory in the disc drive for a tilt angle for a recording or reproducing sector

of the disc in which the tilt is detected.” As previously set forth in the Amendment filed April 7, 2008, the detecting and correcting of tilt in claim 1 is for a recording or reproducing sector. Shimada merely describes detecting tilt for a calibration recording data area, and then interpolating values detected in the calibration recording data area to determine tilt in areas in between. Therefore, Shimada fails to describe or suggest the claimed “tilt angle for a recording or reproducing sector of the disc in which the tilt is detected.”

Further, as Shimada is directed towards only detecting tilt in a calibration recording data area, also the value stored in the memory of Shimada is only a detected tilt value from the calibration recording data area. In the passage cited in the Office Action, col. 10, lines 36-46, Shimada describes saving an optimum tilting angle at which the radial tilt is the smallest, for the calibration recording data area. Therefore, Shimada further fails to describe or suggest the claimed “storing the calculated tilt angle in the memory so that the calculated tilt angle is used for the recording or reproducing sector.”

Still further, as Shimada describes merely saving an optimum tilting angle at which the radial tilt is the smallest, for the calibration recording data area, Shimada fails to describe or suggest the claimed “wherein if a tilt angle is found in the memory, the tilt of the disc is corrected using the found tilt angle, and if the tilt angle is not found in the memory, the tilt of the disc is corrected using the calculated tilt angle.” Rather than correcting tilt using a tilt angle found in the memory for a recording or reproducing sector of the disc in which the tilt is detected, Shimada merely describes in col. 13, lines 34-49, that an arithmetical interpolating method may be used to determine tilt for areas of the disk in between the inner and outer circumference areas, the interpolation method using the tilt angles from the inner and outer circumference areas. See Shimada, col. 13, lines 34-49. Therefore, Shimada also fails to describe or suggest the claimed “wherein if a tilt angle is found in the memory, the tilt of the disc is corrected using the found tilt angle, and if the tilt angle is not found in the memory, the tilt of the disc is corrected using the calculated tilt angle.”

Therefore, Applicants submit that Shimada fails to describe or suggest the features of claim 1.

Applicants respectfully submit that Erbert fails to teach or discuss the above described deficiencies of Shimada.

Thus, Applicants respectfully submit that claims 1, 3, 5 and 16 which at least recite similar features in differing scope and breadth, patentably distinguish over Shimada and Erbert, whether considered alone or in combination. Claim 6 depends from claim 5, therefore, for at

least the reasons presented above regarding claim 5, claim 6 also patentably distinguishes over Shimada and Erbert, whether considered alone, or in combination.

Claim 4 at least recites "wherein if the tilt angle is not found in the memory, the controller calculates the tilt angle for the recording or reproducing sector of the disc wherein the pickup is currently positioned based on the tilt of the disc." Applicants respectfully submit that Shimada is silent regarding any calculations taking place when a tilt angle is not found in memory. In contrast, Shimada describes that tilt angles for areas of the disk in between the calibration data recording areas are calculated using an interpolation method which uses tilt angles from the calibration data recording areas. Therefore, in Shimada a tilt angle of at least one calibration data recording area is found in memory in order to calculate the interpolation value. Thus, Shimada fails to describe at least these features of claim 4. Further, Applicants submit that Erbert fails to cure the deficiencies of Shimada.

Therefore, Applicants submit that claim 4 patentably distinguishes over Shimada and Erbert, whether considered alone, or in combination.

Withdrawal of this rejection and favorable reconsideration of the claims are respectfully requested.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimada in view of Erbert and further in view of Nishiwaki, U.S. Patent No. 6,704,254. This rejection is respectfully traversed.

Applicants respectfully submit that Nishiwaki fails to teach or discuss the above described deficiencies of Shimada and Erbert as described above.

Claim 7 at least recites features similar to claim 1, in differing scope and breadth, and thus Applicants submit that for at least the reasons above regarding claim 1, claim 7 patentably distinguishes over the cited art Shimada, Erbert and Nishiwaki, whether considered alone, or in combination.

Withdrawal of this rejection and favorable reconsideration of claim 7 are respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Docket No.: 1293.1800

Serial No. 10/642,674

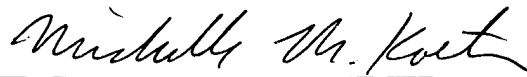
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: September 4, 2008

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